

CT-15-150

Highly compact, high-speed, electrically driven radial turbo compressor for the circulation and compression of various gases and refrigerants.

- Lowest ratio of volume and weight versus pressure and mass flow due to highest speeds
- Thermodynamic and electromagnetic optimization for highest total efficiency
- High-speed ball bearings with permanent lubrication
- Compatible to converter CC-75-500
- Integrated temperature measurement for overload protection

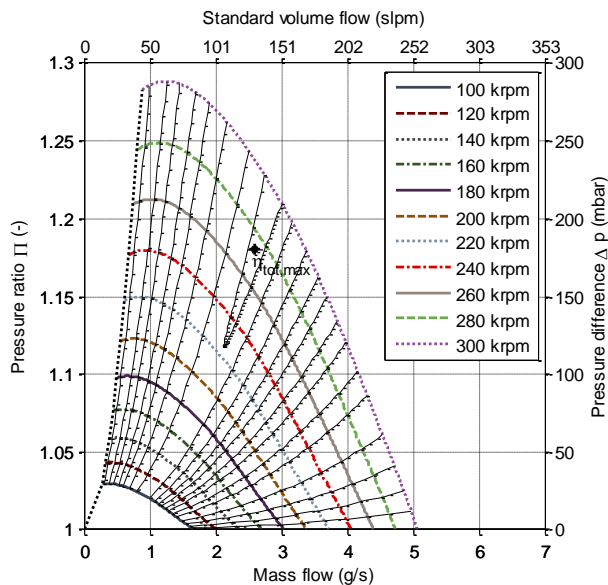


Specifications turbo compressor

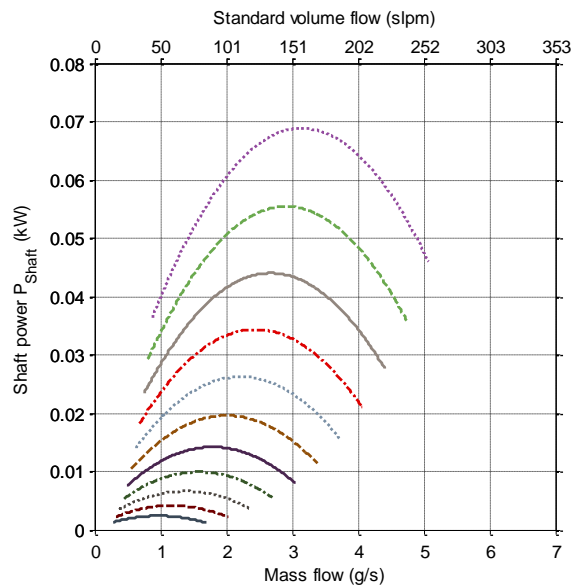
Maximum pressure ratio	1.3
Maximum mass flow	5 g/s
Maximum isentropic overall efficiency ¹	63%
Rated power	70 W
Rated speed	300,000 rpm
Weight	110 g

Compressor maps: overpressure operation

Pressure ratio versus mass flow



Input power versus mass flow

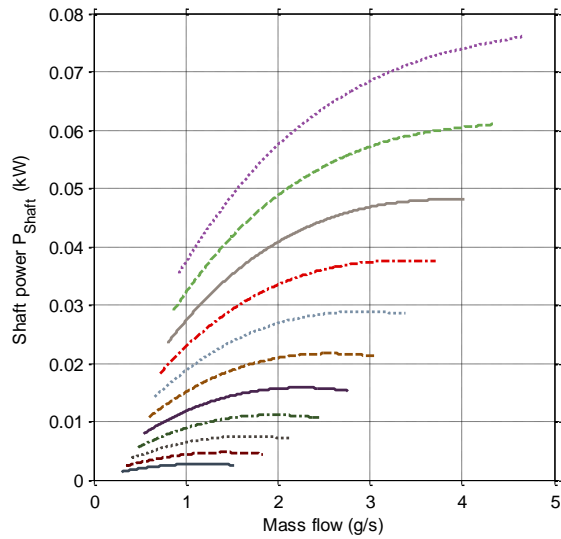
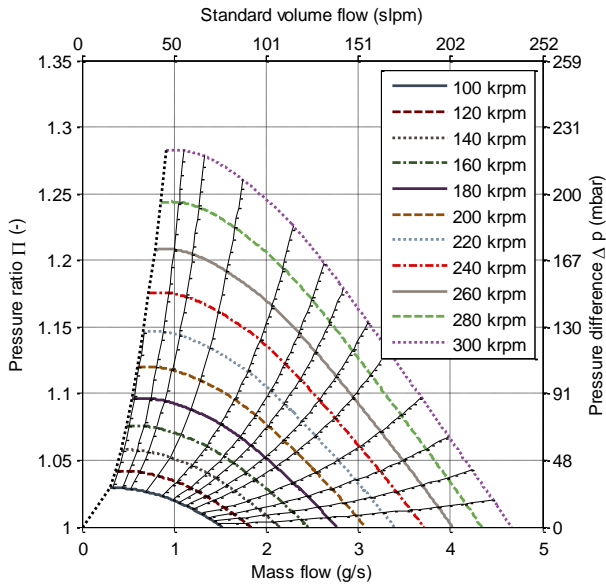


¹Isentropic overall efficiency including aerodynamic, motor and bearing efficiency

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Compressor maps: vacuum operation

Pressure ratio versus mass flow Input power versus mass flow



Order codes: CT-15-150.Bxx

Bearing options Bxx

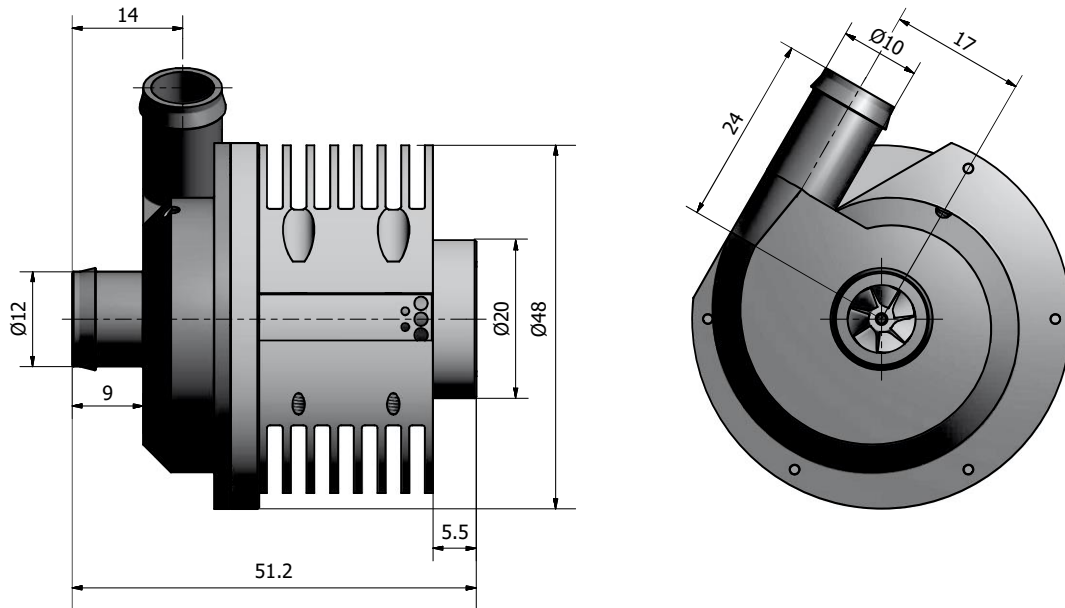
- B00 Standard ball bearing
- B01 Vacuum ball bearing
- B99 Custom specific ball bearing (inlet conditions and/or gas, etc.)

Ordering information	Article number
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CT-15-150.B00	4010001
CT-15-150.B01	4010002
CT-15-150.B00 with CC-75-500 (24 – 75 VDC)	4040010
CT-15-150.B01 with CC-75-500 (24 – 75 VDC)	4040011

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Drawing (in mm)



The specifications and compressor maps in this document for

- an overpressure operation refers to air (ISO 8778) at the inlet of the compressor with: temperature: $T = 20^{\circ}\text{C}$, absolute pressure: $p_{in} = 1 \text{ bar}$.
- a vacuum operation refers to air (ISO 8778) at the inlet of the compressor with: temperature: $T = 20^{\circ}\text{C}$, and a compressor absolute outlet pressure: $p_{in} = 1 \text{ bar}$.



Depending on custom specific operation conditions such as e.g. gas inlet pressure and temperature, humidity, cooling conditions, the operation in environmental conditions with vibrations and/or depending on the combination of the compressor and the corresponding Celeroton converter, the compressor maps shown in this document may be different or may have additional limitations.

For technical details and further information, please refer to the user manual or contact Celeroton directly.